



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,308	02/06/2004	Nobuhiko Noma	P24207	7414
7055 7590 04/29/2009 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191				
EXAMINER YUN, EUGENE				
ART UNIT 2618		PAPER NUMBER		
NOTIFICATION DATE 04/29/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
pto@gbpatent.com

Office Action Summary

Application No.

10/772,308

Applicant(s)

NOMA ET AL.

Examiner

EUGENE YUN

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3, 4, 7, 8 and 12-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3, 4, 7, 8 and 12-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/17/2009 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3, 4, 7, 8, and 12-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warke (US 6,566,889) in view of Murphy et al. (US 6,765,989).

Referring to Claim 3, Warke teaches an ADSL modem apparatus comprising:
an exchange unit that transmits and receives a REVERB signal according to one of the ITU-T standard G.992.1 and G.992.2 (see col. 5, lines 17-24);

an estimation unit that estimates a communication distance to an opposing ADSL modem apparatus based upon a reception level of the REVERB signal (see col. 6, lines 35-40); and

a communication unit that communicates by concentrating signal energy into a low frequency band, the signal energy being assigned to a transmission signal according to the communication distance estimated by said estimation unit (see col. 8, lines 55-66).

Warke does not teach transmitting and receiving a REVERB signal during an initialization sequence portion of communication and performing data transmission subsequent to the initialization sequence portion. Murphy teaches transmitting and receiving a REVERB signal during an initialization sequence portion of communication and performing data transmission subsequent to the initialization sequence portion (see col. 5, lines 46-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Murphy to said device of Warke in order to reduce noise in communications involving ITU-T standard.

Referring to Claim 7, Warke teaches a communication method for an ADSL modem apparatus, comprising:

receiving a REVERB signal according to one of the ITU-T standard G.992.1 and G.992.2 (see col. 5, lines 17-24);

estimating a communication distance to an opposing ADSL modem apparatus according to a reception level of the REVERB signal (see col. 6, lines 35-40); and

concentrating signal energy into a low frequency band, the signal energy being assigned to a transmission signal based upon the estimated communication distance (see col. 8, lines 55-66).

Warke does not teach transmitting and receiving a REVERB signal during an initialization sequence portion of communication and performing data transmission subsequent to the initialization sequence portion. Murphy teaches transmitting and receiving a REVERB signal during an initialization sequence portion of communication and performing data transmission subsequent to the initialization sequence portion (see col. 5, lines 46-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Murphy to said device of Warke in order to reduce noise in communications involving ITU-T standard.

Referring to Claims 4 and 8, Warke also teaches said communication unit minimizing the signal energy assigned to a high frequency band and increasing increasing the signal energy assigned to the low frequency band, when the communication distance to the opposing ADSL modem apparatus is increased (see col. 5, lines 37-47).

Referring to Claims 12 and 17, Warke also teaches estimating the communication distance based upon a comparison of the reception level between two carriers of a plurality of carriers (see col. 1, lines 25-34).

Referring to Claims 13 and 18, Warke also teaches estimating the communication distance based upon comparison of a difference in signal energy attenuation between two carriers of a plurality of carriers (see col. 1, lines 25-34).

Referring to Claims 14 and 19, Warke also teaches concentrating signal energy into the low-frequency band without changing a total amount of signal energy in a data communication band (see col. 5, lines 17-24).

Referring to Claims 15 and 20, Warke also teaches performing ADSL communication using a power spectral density modified based upon the communication distance estimated by said estimation unit (see col. 1, lines 25-34).

Referring to Claims 16 and 21, Warke also teaches selecting one of a plurality of stored power spectral densities based on a communication distance estimated by said estimation unit (see col. 1, lines 25-34).

Response to Arguments

4. Applicant's arguments with respect to claims 3, 4, 7, 8, and 12-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EUGENE YUN whose telephone number is (571)272-7860. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571)272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eugene Yun
Primary Examiner
Art Unit 2618

/Eugene Yun/
Primary Examiner, Art Unit 2618
/E. Y./
Primary Examiner, Art Unit 2618